

ABSTRACT

[Problems] To provide a semiconductor device
5 including a MIS-type FET having an excellent characteristic
of low leakage current despite use of a high-K material of a
high dielectric constant in a gate insulating film.

[Means for solving Problems] A MIS-type field-effect-
transistor (FET) including: a silicon substrate (1); an
10 insulating film (6) formed on the silicon substrate and
containing silicon and at least one of nitrogen and oxygen; a
metal oxide film formed on the insulating film and containing
silicon and hafnium; and a gate electrode formed on the metal
oxide film, wherein a silicon molar ratio ($\text{Si}/(\text{Si}+\text{Hf})$) in the
15 meal oxide film is in the range of 2 to 15%.